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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/632,630	07/31/2003	Drow Lionel O'Young	A-71155-1/MSS (469332-1)	2767

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EXAMINER	
GALE, KELLETTE	
ART UNIT	**PAPER NUMBER**
1621	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/23/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/632,630	O'YOUNG ET AL.	
	Examiner	Art Unit	
	Kellette Gale	1621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 December 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Status of Claims

Claims 1-10 are pending.

Claims 1-10 have been rejected.

Response to Amendment

The amendment to claim 1 has been received and acknowledged by the Examiner.

Response to Arguments

Applicant's arguments filed December 18, 2006 have been fully considered but they are not persuasive. In regards to the rejection of claims 1-10 under 35 USC 112, first paragraph, the Examiner contends that applicant has not satisfied the requirements of this rejection. One of ordinary skill in the art would not know how to carry out the limitations of the claims because there has not been any compounds or group of compounds listed in the specification that would allow anyone of ordinary skill in the art to prepare a phase diagram. One having ordinary skill in the art would not find it obvious to use any compound and/or combination of compounds to arrive at a ternary phase diagram.

Also, Claim 1 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The phrase "without crystallizing the adduct"

and "the pure" solid compound are not found in the specification. If it is indeed in the specification applicant is hereby asked to point it out.

Applicant's arguments, see remarks, filed December 18, 2006, with respect to the rejection(s) of claim(s) 1-5 under 35 USC 102(b) have been fully considered with respect to the newly filed amendments and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of these claims.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gomes de Mateo et al (US 5,210,329).

Applicant claims a method of separating one or more compounds from a solution by crystallization where the solution exhibits at least a ternary phase equilibrium

relationship which is represented by at least a ternary phase diagram, comprising the steps of providing the solution comprised of at least three components in phase equilibrium, including one or more compound components and a solvent component, and where the compound components may form an adduct, and where the solvent component is comprised of two or more solvents, including at least a first solvent exhibiting a first phase behavior, and at least a second solvent exhibiting a second phase behavior; where the at least three components in phase equilibrium exhibit phase behavior which establishes at least two compartments in the phase diagram, including an adduct compartment and at least one pure solid compound compartment; manipulating the area of the adduct and pure solid compound compartments by selectively adjusting the concentration ratio of the two or more solvents in the solution; adjusting the composition of the solution prior to crystallization to place the solution concentration at a location selectively within a desired compartment; and crystallizing the solution to form the pure solid compound without crystallizing the adduct.

Determination of the scope and content of the prior art

(MPEP §2141.01)

Gomes de Matos et al teach a method of separating compounds via crystallization which comprises forming a purge stream of at least three components, Bisphenol-A, Bisphenol-A isomers, and tar, wherein there is at least two or more solvents and at least one pure solid compound compartment. Also, the concentration of the compounds within the solution are adjusted by adding to, and/or removing

components in order to ultimately arrive at a Bisphenol-A/phenol adduct followed by separation of said adduct from it mother liquor (please see abstract).

Ascertainment of the difference between the prior art and the claims

(MPEP §2141.02)

The difference between Gomes de Matos et al and the claims is that Gomes de Matos et al does not teach selectively adjusting the concentration ratio of the two or more solvents in the solution.

Also, the pure solid compound is crystallized along with the adduct.

Finding of prima facie obviousness

Rational and Motivation (MPEP §2142-2143)

One having ordinary skill in the art would find it obvious through routine experimentation to adjust the concentration of two or more solvents in order to arrive the expected results. Also, one having ordinary skill in the art at the time of instant invention would find it obvious to crystallize a pure solid compound without crystallizing the adduct thereof in order to retain the purity of said pure compound. One having ordinary skill in the art would be motivated to do so with a reasonable expectation of success since it has been done by Gomes de Matos et al with great success.

Applicant's arguments filed December 18, 2006 have been fully considered with respect to the rejection of claim 9 under 35 USC 102(b) but they are not persuasive. The Examiner contends that all of the limitations of the claims have been satisfied regarding Gomes de Matos et al.

Applicant's arguments filed December 18, 2006 have been fully considered with respect to the rejection of claims 6-8 and 10 under 102(b) but they are not persuasive. The Examiner contends that all of the limitations of the claims have been satisfied regarding Kohn et al..

Conclusion

This is a *** of applicant's earlier Application No. ***. All claims are drawn to the same invention claimed in the earlier application and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the earlier application. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action in this case. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no, however, event will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kellette Gale whose telephone number is (571) 272-8038. The examiner can normally be reached on M-F (6:30am-3:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thurman Page can be reached on (571) 272-0602. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Kellette Gale
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March 14, 2007

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